

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								DATE February 2000	
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605803A Technical Information Activities					
COST (In Thousands)	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	19252	15859	26749	26989	27304	28747	29472	Continuing	Continuing
DC16 Field Assistance in Science and Technology	2588	2632	2487	2533	2577	2625	2671	Continuing	Continuing
DC18 Board on Army Science and Technology	677	724	736	745	755	808	847	Continuing	Continuing
M720 Technical Information Functional Activities	5468	2852	3659	3720	3781	4016	4205	Continuing	Continuing
M727 Technical Information Activities	2714	2920	5273	5578	5823	6182	6374	Continuing	Continuing
M729 Youth Science Activities	2010	2213	2089	2127	2168	2209	2252	Continuing	Continuing
D730 Personnel and Training Analysis Activities	1967	2047	2188	2228	2273	2379	2446	Continuing	Continuing
D731 Army High Performance Computing Centers	0	0	6891	6791	6683	6819	6957	Continuing	Continuing
M733 Acquisition Technology Act	3056	1704	2662	2505	2486	2937	2932	Continuing	Continuing
M735 Net Assessment Directorate	772	767	764	762	758	772	788	Continuing	Continuing

A. Mission Description and Budget Item Justification: This program provides for upgrading the accuracy, timeliness, availability, and accessibility of scientific, technical, and management information at all levels of Army Research and Development (R&D). This includes initiatives to improve information derivation, storage, access, display, validation, transmission, distribution, and interpretation. This program addresses the need to increase the competitiveness and availability of scientific, engineering, and technical skills in the DoD and National workforce. It accomplishes this through outreach programs that provide direct working experience for high school students in Army laboratories, thereby exposing these students to the working world of science and engineering. Funding under this program provides for the conduct of analyses, using behavioral science-based analytic tools, to provide policy and decision makers with soldier oriented recommendations concerning manpower, personnel and training issues. This program also provides for science advisors to Commanders-in-Chief (CINCs) and major Army commands and engineering teams to directly solve field Army technical problems. Coordination of this program with other Services is achieved through interservice working groups. The work in this program element is consistent with rigorous peer review and the Army Science and Technology Master Plan (ASTMP). These programs are accomplished under the management of the Army Research Laboratory, the Army Materiel Command, the Army Research Office, the Army Research Institute, the Army Corps of Engineers and the Information Management Office.

Page 1 of 17 Pages
Exhibit R-2 (PE 0605803A)

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

DATE
February 2000

BUDGET ACTIVITY

6 - Management and Support

PE NUMBER AND TITLE

0605803A Technical Information Activities

B. Program Change Summary	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
Previous President's Budget (<u>FY 2000/2001</u> PB)	16006	15973	16330
Appropriated Value	16251	15973	
Adjustments to Appropriated Value			
a. Congressional General Reductions	-245		
b. SBIR / STTR	-400		
c. Omnibus or Other Above Threshold Reductions		-61	
d. Below Threshold Reprogramming	+3710		
e. Rescissions	-64	-53	
f. DoD Internal Reprogramming			
Adjustments to Budget Years Since (<u>FY 2000/2001</u> PB)			+10419
Current Budget Submit (<u>FY 2001</u> PB)	19252	15859	26749

Change Summary Explanation: Funding – FY 01: Transfer of funding (+6891) from O&MA accounts to support operations at Army distributed high performance computing centers under Project D731. Increases in Projects M720 (+750), M727 (+2200) and M733 (+578) to enhance independent reviews of Army S&T, conduct Technology Materiel Games, and improve Army S&T management processes..

UNCLASSIFIED

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							DATE February 2000		
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605803A Technical Information Activities				PROJECT DC16	
<i>COST (In Thousands)</i>	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
DC16 Field Assistance in Science and Technology	2588	2632	2487	2533	2577	2625	2671	Continuing	Continuing
<p><u>Mission Description and Justification:</u> This program focuses Army Materiel Command (AMC) resources to rapidly identify and solve field Army technical problems affecting improved readiness, safety, training, and operations and support (O&S) cost reductions. The Commanding General, AMC, institutionalized AMC Field Assistance in Science and Technology (FAST) in 1988 to plan for and allocate all AMC FAST program funding for projects to support CINCs and commanders and to operate the director's office. FAST tours provide major professional growth for scientists and engineers. Science advisers are recruited from AMC engineering centers to serve Commanders-in-Chief (CINCs) and major Army commanders worldwide and are supported by assigned Quick Reaction Coordinators (QRCs) within each AMC engineering center. All costs associated with science advisor assignments are funded by AMC subordinate commands that supply the science advisers for two to three year tours. FAST manages a level of effort type project with most projects recouping many times their cost in O&S cost savings. Many of the efforts in this Project are on-going activities to support Army RD&A programs.</p> <p>FY 1999 Accomplishments:</p> <ul style="list-style-type: none"> • 2588 - Conducted research to provide rapid technological solutions to problems identified and prioritized by CINCs worldwide. Specific examples follow. <ul style="list-style-type: none"> - Science Advisors deployed to Bosnia and Macedonia to evaluate Force Protection measures and to Latin America in support of humanitarian and counter narcotics efforts. - Exploited numerous technologies to reduce Army O&S costs: battery management, reduction of rust and corrosion, waste oil reutilization, and extending tire life. - Increased capabilities to conduct Force Projection Operations by developing the Flyaway Kit (prepackaged computer, data and communications equipment), the Remotely Operated Weather Station, and Machine-Assisted Language Translations. - Increased training capabilities by developing the Laser Aimed Scoring System (permits accurate appraisal of Apache helicopter missile practice) and a 40mm Blank Training Round to improve force-on-force infantry training. - Provided professional growth opportunity for 20 Army senior science advisors and Army junior scientists and engineers (two- to eight-week Army laboratory tours) through the Field Assistance in Science and Technology (FAST) Program. - Provided professional growth opportunity for civilian personnel through the Scientists and Engineers Field Experience with Soldiers (SEFEWS) program, which gives scientists and engineers the opportunity to participate in training events in the field. <p>Total 2588</p>									
<div style="display: flex; justify-content: space-between;"> Project DC16 Page 3 of 17 Pages Exhibit R-2A (PE 0605803A) </div>									

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)		DATE February 2000
BUDGET ACTIVITY 6 - Management and Support	PE NUMBER AND TITLE 0605803A Technical Information Activities	PROJECT DC16
<p>FY 2000 Planned Program:</p> <ul style="list-style-type: none"> • 2566 - Provide continuous activity on over 100 FAST projects. Define, test and recommend technological solutions to urgent materiel problems identified by CINCs worldwide and prepare operational needs statements and test results for the highest priority programs. <ul style="list-style-type: none"> - Deploy Science Advisors with U.S. Task Forces as requested by CINCs. - Provide professional growth opportunity for 20 Army senior science advisors and FAST Program tours for Army junior scientists and engineers. - Provide professional growth opportunity for civilian personnel through the Scientists and Engineers Field Experience with Soldiers (SEFEWS) program, which gives scientists and engineers the opportunity to participate in training events in the field. • 66 - Small Business Innovative Research / Small Business Technology Transfer (SBIR/STTR) Programs. <p>Total 2632</p> <p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 2487 - Provide continuous activity on over 100 FAST projects. Define, test and recommend technological solutions to urgent materiel problems identified by CINCs worldwide and prepare operational needs statements and test results for the highest priority programs. <ul style="list-style-type: none"> - Deploy Science Advisors with U.S. Task Forces as requested by CINCs. - Provide professional growth opportunity for 20 Army senior science advisors and FAST Program tours for Army junior scientists and engineers. - Provide professional growth opportunity for civilian personnel through the Scientists and Engineers Field Experience with Soldiers (SEFEWS) program, which gives scientists and engineers the opportunity to participate in training events in the field. <p>Total 2487</p>		
Project DC16	Page 4 of 17 Pages	Exhibit R-2A (PE 0605803A)

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)								DATE February 2000	
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605803A Technical Information Activities				PROJECT DC18	
<i>COST (In Thousands)</i>	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
DC18 Board on Army Science and Technology	677	724	736	745	755	808	847	Continuing	Continuing

Mission Description and Justification: The Board on Army Science and Technology (BAST) was created in 1982 by the National Research Council (NRC) through its Commission on Engineering and Technology Systems at the request of the Under Secretary of the Army. The BAST designs, conducts, and supervises the NRC's Army-related studies of scientific and technological issues. As such, the BAST defines problems, brings together leading experts to study them, and most importantly, draws conclusions, identifies alternatives and implications, and makes recommendations as appropriate. The major activities of this group include board meetings, special requests, standing committees, study committees and workshops and seminars. Most of the efforts in this Project are on-going activities to support Army RD&A programs.

FY 1999 Accomplishments:

- 677 - BAST technical experts supported forecasts of Army science and technology needs and responded to immediate S&T requirements.
- BAST experts participated in peer reviews for the annual ILIR and RDA awards review.
- Initiated a BAST study to examine opportunities in the biotechnologies area (Biotechnologies for Future Army Applications).
- Provide BAST liaisons to the following committees: 1) Review and evaluation of the Army Chemical Stockpile Disposal Program; 2) review of the Non-Stockpile Chemical Material Disposal Program; 3) Deployed Forces Project: Technology and Methods for Detection and Tracking of Exposures to a subset of harmful agents; and 4) Deployed Forces Project: Physical Protection and Decontamination.

Total 677

FY 2000 Planned Program:

- 705 - Provide technical expert support for forecast of Army science and technology needs and respond to immediate science and technology requirements.
- Provide experts to participate in peer reviews for annual ILIR and RDA awards review.
- Complete assessments for the Biotechnologies for Future Army Applications study.
- Conduct studies for Army S&T issues.
- 19 - Small Business Innovative Research / Small Business Technology Transfer (SBIR/STTR) Programs.

Total 724

FY 2001 Planned Program:

- 736 - Provide technical expert support for forecast of Army science and technology needs and respond to immediate science and technology requirements.
- Provide experts to participate in peer reviews for annual ILIR and RDA awards review.
- Complete analysis and documentation of the Biotechnologies for Future Army Applications data.

Total 736

Project DC18
Page 5 of 17 Pages
Exhibit R-2A (PE 0605803A)

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)								DATE February 2000	
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605803A Technical Information Activities				PROJECT M720	
<i>COST (In Thousands)</i>	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
M720 Technical Information Functional Activities	5468	2852	3659	3720	3781	4016	4205	Continuing	Continuing

Mission Description and Justification: Technology transfer activities to support acquisition, storage, and utilization of technical information for both military and domestic applications. Activities supported are: Army participation in the Technology Seminar Game; Defense Technical Information Center (DTIC) Work Unit Information Summary (WUIS) database; Army support for the Federated Laboratory Consortium (FLC); the Army Science Board; administration of the Army's Small Business Innovative Research (SBIR) and Small Business Technology Transfer Pilot Program (STTR) in accordance with the "Small Business Research and Development Enhancement Act of 1992". These costs are funded here because the Act prohibits use of PE 0605502 for funding administrative costs, studies and analyses to support the Acquisition Corps acquisition and retention of scientists and engineers and improvement of productivity of laboratories and centers. Technology transfer activities make technical information available to both the public and private sectors to reduce duplication in R&D programs and to increase competitiveness in the U.S. business community. In addition, this project provides funding for patent fees and patent legal expenses for all U. S. Army Materiel Command (AMC) subordinate commands and laboratories. The requirement to fund this effort is a result of the Omnibus Budget Reconciliation Act requiring the U. S. Patent and Trademark Office to become a completely user-fee funded agency. Most of the efforts in this Project are on-going activities to support Army RD&A programs.

FY 1999 Accomplishments:

- 5468 - Provided managerial, programming, database, clerical and personnel support to process, store, control and report the WUIS, and Form 1498's.
 - Provided Army funding support for Federated Laboratory Consortium as required by Public Law 99-502.
 - Provided administrative and contractual support for the Army Science Board.
 - Provided administrative support for the Army's SBIR and STTR programs.
 - Provided Army Science and Technology Reports.
 - Provided funding for patent fees and patent legal expenses for AMC commands and laboratories.
 - Provided funding for Army Science and Technology Summer Study and awards.
 - Provided funding for Technology and Materiel Game.
 - Provided funding for Independent Assessment.

Total 5468

FY 2000 Planned Program:

- 2783 - Provide Army funding support for Federated Laboratory Consortium as required by Public Law 99-502.
 - Provide administrative and contractual support for the Army Science Board.
 - Provide administrative support for the Army's SBIR and STTR programs.
 - Provide Army Science and Technology Reports.
 - Provide funding for patent fees and patent legal expenses for AMC commands and laboratories.

Project M720 Page 6 of 17 Pages Exhibit R-2A (PE 0605803A)

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)		DATE February 2000
BUDGET ACTIVITY 6 - Management and Support	PE NUMBER AND TITLE 0605803A Technical Information Activities	PROJECT M720
<p>- Provide funding for Army Science and Technology Summer Study and awards.</p> <p>FY 2000 Planned Program: (continued)</p> <p>- Provide funding for Technology and Materiel Game.</p> <p>- Provide funding for Independent Assessment.</p> <p>• 69 - Small Business Innovative Research / Small Business Technology Transfer (SBIR/STTR) Programs.</p> <p>Total 2852</p> <p>FY 2001 Planned Program:</p> <p>• 3659 - Provide Army funding support for Federated Laboratory Consortium as required by Public Law 99-502.</p> <p>- Provide administrative and contractual support for the Army Science Board.</p> <p>- Provide administrative support for the Army's SBIR and STTR programs.</p> <p>- Provide Army Science and Technology Reports.</p> <p>- Provide funding for patent fees and patent legal expenses for AMC commands and laboratories.</p> <p>- Provide funding for Army Science and Technology Summer Study and awards.</p> <p>- Provide funding for Technology Seminar Game</p> <p>- Provide funding for Independent Assessment.</p> <p>Total 3659</p>		
Project M720	Page 7 of 17 Pages	Exhibit R-2A (PE 0605803A)

UNCLASSIFIED

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							DATE February 2000		
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605803A Technical Information Activities				PROJECT M727	
<i>COST (In Thousands)</i>	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
M727 Technical Information Activities	2714	2920	5273	5578	5823	6182	6374	Continuing	Continuing

Mission Description and Justification: This project supports development of decision aids, databases, and automation support for the management and execution of the Army Research, Development, Test and Evaluation (RDTE) Appropriation. It includes the hardware, software and contractor support required to develop and implement a set of management decision aids, databases, and hardware/software tools to support technical and budgetary decisions at the Office, Secretary of Defense (OSD); Department of the Army (DA), including support of the Army Science and Technology Master Plan; Corps of Engineers; Army Materiel Command (AMC); and Army Research Laboratory. This project includes support of the Acquisition Management Integration Subgroup (AMIS) dealing with acquisition management systems. Most of the efforts in this Project are on-going activities to support Army RD&A programs.

FY 1999 Accomplishments:

- 2714 - Administered S&T database computer engineering support contract.
- Supported Army S&T strategic planning, analysis, and prioritization.
- Supported AMC database and Defense Reliance management.
- Provided guidance and policy relative to the content, utilization, and requirements of current and future acquisition management systems for AMIS.

Total 2714

FY 2000 Planned Program:

- 2845 - Administer S&T database computer engineering support contract.
- Support Army S&T strategic planning, analysis, and prioritization.
- Support AMC database and Defense Reliance management.
- Provided guidance and policy relative to the content, utilization, and requirements of current and future acquisition management systems for AMIS.

- 75 - Small Business Innovative Research / Small Business Technology Transfer (SBIR/STTR) Programs.

Total 2920

FY 2001 Planned Program:

- 5273 - Administer S&T database computer engineering support contract.
- Support Army S&T strategic planning, analysis, and prioritization.
- Support AMC database and Defense Reliance management.

Total 5273

Project M727
Page 8 of 17 Pages
Exhibit R-2A (PE 0605803A)

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)								DATE February 2000	
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605803A Technical Information Activities				PROJECT M729	
COST (In Thousands)	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
M729 Youth Science Activities	2010	2213	2089	2127	2168	2209	2252	Continuing	Continuing
<p>Mission Description and Justification: Supports science activities to encourage over 100,000 high school youths to develop interest and achieve higher levels in science, engineering, and mathematics. These activities are consolidated within this program to "present the Army" to a potential pool of technical talent to fill future Army needs. No other program fulfills this long-range Army goal. The joint Army/Navy Washington regional area Science and Engineering Apprenticeship Program (SEAP) has been included in the overall effort. This provides an eight-week hands-on learning experience for high school students working with bench level scientists within Army laboratories in hopes of encouraging more of them to enter scientific fields of study in the future. This program enhances the National Laboratory Science and Engineering pool, which in turn supports Defense industry, and laboratory needs. Most of the efforts in this Project are on-going scientific outreach activities to foster interest in Army RD&A programs.</p> <p>FY 1999 Accomplishments:</p> <ul style="list-style-type: none"> • 2010 - Fostered high school student interest nationally in science, mathematics, engineering and computer science by sponsoring Junior Science and Humanities Symposia (JSHS), International Science and Engineering Fairs (ISEF), International Mathematics Olympiad (IMO), and Research and Engineering Apprenticeship Program (REAP). <ul style="list-style-type: none"> - Co-sponsored joint Army/Navy Washington Regional Area SEAP. - Conducted a special tutorial program for Native Americans, African Americans, and Spanish-speaking Americans, known as the United Introduction to Engineering (UNITE) program, designed to increase their chances of attending and completing engineering and/or science curriculum at the university level. - Conducted the West Point cadet research internship program to enhance cadet training through field experience within Army research laboratories and centers. <p>Total 2010</p> <p>FY 2000 Planned Program:</p> <ul style="list-style-type: none"> • 2154 - Foster high school student interest nationally in science, mathematics, engineering and computer science by sponsoring JSHS, ISEF, IMO, and REAP. <ul style="list-style-type: none"> - Conduct the joint Army/Navy Washington Regional Area SEAP and increase Army Laboratory/Research, Development and Engineering Center (RDEC) sponsorship of students. - Conduct a special tutorial programs for Native Americans, African Americans, and Spanish-speaking Americans, the UNITE program, designed to increase their chances of attending and completing engineering and/or science curriculum at the university level. - Conduct West Point cadet research internship program to enhance cadet training through field experience within Army research labs and centers. • 59 - Small Business Innovative Research / Small Business Technology Transfer (SBIR/STTR) Programs. 									
Project M729			Page 9 of 17 Pages			Exhibit R-2A (PE 0605803A)			

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)		DATE February 2000
BUDGET ACTIVITY 6 - Management and Support	PE NUMBER AND TITLE 0605803A Technical Information Activities	PROJECT M729
Total	2213	
FY 2001 Planned Program: <ul style="list-style-type: none"> 2089 - Foster high school student interest nationally in science, mathematics, engineering and computer science by sponsoring JSHS, ISEF, IMO, and REAP. <ul style="list-style-type: none"> - Sponsor joint Army/Navy Washington Regional Area SEAP and increase Army Laboratory/RDEC sponsorship of students. - Conduct special tutorial programs for Native Americans, African Americans, and Spanish-speaking Americans, the UNITE program, designed to increase their chances of attending and completing engineering and/or science curriculum at the university level. - Conduct West Point cadet research internship program to enhance cadet training through field experience within Army research laboratories and centers. 		
Total	2089	
<div>Project M729</div> <div>Page 10 of 17 Pages</div> <div>Exhibit R-2A (PE 0605803A)</div>		

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							DATE February 2000		
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605803A Technical Information Activities				PROJECT D730	
COST (In Thousands)	FY1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
D730 Personnel and Training Analysis Activities	1967	2047	2188	2228	2273	2379	2446	Continuing	Continuing
<p>Mission Description and Budget Item Justification: This project provides for the application of behavioral science-based analytical technologies by the U.S. Army Research Institute (ARI) for the Behavioral and Social Sciences to current and near-term training, leadership, and soldier-related (TLS) issues. The program is focused on policy issues to enhance soldier performance, and provides the Army a unique capability for addressing such issues as the effects of training on individual and unit readiness, the personnel costs of alternative force structures, and the effects of a smaller Army on retention and readiness of quality soldiers. Requirements for studies and analyses for critical personnel and training issues of immediate importance are solicited on an annual basis.</p> <p>FY 1999 Accomplishments:</p> <ul style="list-style-type: none"> • 1967 - Completed assembly of data on the backgrounds and enlistment expectations of new recruits as the first step in understanding training-base attrition. - Identified key topics of concern and conducted interviews with senior Army leaders on how they have managed change as the Army transitions to the first all-digital division - Identified issues and alternative courses of action for distributed training development activities. - Completed interviews with Joint Readiness Training Center (JRTC) analysts to examine the feasibility of a centralized training analysis and feedback system to support multiple exercises at separate training sites. - Completed interviews with experienced leaders and Observer-Controllers on the benefits of live-fire exercises at JRTC. - Completed book on "The Elements of Training Evaluation" which describes the necessary conditions for making valid inferences about the effectiveness of Army training. <p>Total 1967</p> <p>FY 2000 Planned Program:</p> <ul style="list-style-type: none"> • 1998 - Develop an approach for evaluating the capabilities of virtual simulation to represent the tasks and missions within a given military application. - Establish a procedure to map soldiers' required information technology knowledge across a spectrum of career management fields. - Design a relational database consisting of commander and key leader insights on managing changes to the Army's first all-digital division. - Compare job performance of Battle Staff NCOs completing their job preparation course by distance learning, with a comparable group completing the course by the traditional classroom method. - Evaluate the Army's new Enlisted Personnel Allocation System for assigning new recruits to Military Occupational Specialties. - Conduct in-depth study to determine reasons why soldiers leave the Army during the initial entry training phase of their enlistment. - Determine the impact of the Army Continuing Education System on personnel retention, job proficiency, and career progression. 									
Project D730		Page 11 of 17 Pages				Exhibit R-2A (PE 0605803A)			

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)		DATE February 2000
BUDGET ACTIVITY 6 - Management and Support	PE NUMBER AND TITLE 0605803A Technical Information Activities	PROJECT D730
<p align="center">- Update database and provide quarterly reports to Army planners on post-service usage of Army College Fund and Montgomery GI Bill programs.</p> <p>FY 2000 Planned Program: (continued)</p> <ul style="list-style-type: none"> • 49 - Small Business Innovative Research / Small Business Technology Transfer (SBIR/STTR) Programs. <p>Total 2047</p> <p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 2188 - Conduct studies and analyze training issues identified by Training and Doctrine Command (TRADOC) - Conduct studies and analyze personnel issues identified by the Chief of Staff, Army (CSA), Assistant Secretary of the Army for Manpower and Reserve Affairs (ASA, M&RA), and Deputy Chief of Staff for Personnel (DCSPER) <p>Total 2188</p>		
Project D730	Page 12 of 17 Pages	Exhibit R-2A (PE 0605803A)

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							DATE February 2000		
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605803A Technical Information Activities				PROJECT D731	
COST (In Thousands)	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
D731 Army High Performance Computing Centers	0	0	6891	6791	6683	6819	6957	Continuing	Continuing

Mission Description and Justification: This project supports collaborative efforts to advance computational science and its application to critical Army technologies. The Centers work with researchers at Army laboratories to develop new tools in the computational sciences to address critical technology issues in advanced armors, advanced artillery, precision air drop and environmental quality. These efforts support the Technology Base Modernization Objectives and focus on streamlining acquisition through Simulation, Modeling, Acquisition, Requirements and Training (SMART). The Centers provide for the sustainment of high performance computing environments and educational outreach as an integral part of their mission.

FY 1999 Accomplishments: This project not funded in FY 1999.

FY 2000 Planned Program: This project not funded in FY 2000.

FY 2001 Planned Program:

- 2355 - Sustain the high performance computing environment and infrastructure in support of the Army Tank and Automotive Research Development and Engineering Center (TARDEC). Conduct technology exchange with PEOs, PMs, and industry in wheeled and tracked vehicle technology.
- 3389 - Sustain the high performance computing environment and infrastructure in support of the Army Research Laboratory Major Shared Research Center (MSRC). This effort also sponsors outreaches to HBCU/MIs and their university partners to collectively develop and improve the state of computational technology in support of critical, Army specific needs to field systems such as the Comanche, Future Combat Vehicle and Joint Heavy Lift Helicopter.
- 1147 - Sustain the high performance computing environment and infrastructure in support of the Army High Performance Computing Research Center's research and educational activities.
 - Conduct technology exchanges with Army researchers in critical computational sciences research areas. Technology transfer activities will include applying improved computational models to support the development of new ceramic materials for use in future armored vehicles, drug/vaccine design, and studies of interior ballistics.

Total 6891

Project D731
Page 13 of 17 Pages
Exhibit R-2A (PE 0605803A)

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)							DATE February 2000		
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605803A Technical Information Activities				PROJECT M733	
<i>COST (In Thousands)</i>	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
M733 Acquisition Technology Act	3056	1704	2662	2505	2486	2937	2932	Continuing	Continuing

Mission Description and Justification: This project provides for the engineering of Army acquisition process improvement through the application of decision support and expert information systems. This project provides funds to conduct analysis and evaluation of alternative acquisition strategies using techniques such as value-added analysis. Supports integrated management activities such as Horizontal Technology Integration and Army Ballistic Missile Defense. This project also provides an environment for the analysis and evaluation of new information technologies, concepts and applications in support of the Army acquisition community's dynamic requirements and for the engineering of Army acquisition process improvement through the application of decision support and expert information systems. Most of the efforts in this Project are on-going activities to support Army RD&A programs.

FY 1999 Accomplishments:

- 2022 - Validated simulation and logical modeling test and evaluation environment that provides a prototype development tool in support of technology base initiatives.
- Distributed and beta tested application programs and user interface utilities for executive level information systems that offer Standard Query Language (SQL) services to Army Acquisition Corps corporate and global databases.
- Analyzed acquisition program financial programming and budgeting requirements. Continued development of Weapon Systems Handbook, long-range planning and policy analysis, resource allocation analysis, cost tracking and analysis, cost-effectiveness and database management/financial analysis, special access required technology application concept research/analysis.
- 1034 - Provided integration and functional analysis support for Army Science and Technology Programs.

Total 3056

FY 2000 Planned Program:

- 1658 - Validate simulation and logical modeling test and evaluation environment that provides a prototype development tool in support of technology base initiatives.
- Distribute and beta test application programs and user interface utilities for executive level information systems that offer Standard Query Language (SQL) services to AAC corporate and global databases.
- Analyze acquisition program financial programming and budgeting requirements.
- Continue development of Weapon Systems Handbook, analytic/technical support for Army Science and Technology Programs, long-range planning and policy analysis, resource allocation analysis, cost tracking and analysis, cost-effectiveness and database management/financial analysis, special access required technology application concept research/analysis.
- 46 Small Business Innovative Research / Small Business Technology Transfer (SBIR/STTR) Programs.

Total 1704

Project M733 Page 14 of 17 Pages Exhibit R-2A (PE 0605803A)

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)		DATE February 2000
BUDGET ACTIVITY 6 - Management and Support	PE NUMBER AND TITLE 0605803A Technical Information Activities	PROJECT M733
<p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 2662 - Validate simulation and logical modeling test and evaluation environment that provides a prototype development tool in support of technology base initiatives. - Distribute and beta test application programs and user interface utilities for executive level information systems that offer Standard Query Language (SQL) services to AAC corporate and global databases. - Analyze acquisition program financial programming and budgeting requirements. - Continue development of Weapon Systems Handbook, Analytic/Technical Support for Army Support for Army Science and Technology Programs, long-range planning and policy analysis, resource allocation analysis, cost tracking and analysis, cost-effectiveness and database management/financial analysis, special access required technology application concept research/analysis. <p>Total 2662</p>		
Project M733	Page 15 of 17 Pages	Exhibit R-2A (PE 0605803A)

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)								DATE February 2000	
BUDGET ACTIVITY 6 - Management and Support				PE NUMBER AND TITLE 0605803A Technical Information Activities				PROJECT M735	
<i>COST (In Thousands)</i>	FY 1999 Actual	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
M735 Net Assessment Directorate	772	767	764	762	758	772	788	Continuing	Continuing

Mission Description and Justification: The Net Assessment Directorate develops and coordinates net assessments of the standing, trends and future prospects for U.S. military capabilities and military potential in comparison with those of other countries or groups of countries to identify emerging or future threats or opportunities for the United States. This includes, as required, net assessments of: (1) current and projected U.S. and foreign military capabilities by theater, region, function, or mission; and (2) specific current and projected U.S. and foreign capabilities, operational tactics, doctrine, and major categories of weapon systems. The Directorate supports preparation of net assessments by the Chairman of the Joint Chiefs of Staff; develops, advises, and consults on the net assessment portion of the Annual Report of the Secretary of Defense to the President and Congress; provides guidance and staff assistance in developing national net assessments by the National Security Council and acts as the primary Office of the Secretary of Defense (OSD) focal point for joint efforts with the Intelligence Community to produce net assessments; and provides support for the improvement and development of net assessments within the Department of Defense. . Many of the efforts in this Project are on-going activities to support Army RD&A programs.

FY 1999 Accomplishments:

- 772 - Developed alternative scenarios for geopolitical future of Eurasia. Drawing on country and functional expertise, identified key actors, trends, and discontinuities that could reshape the character of interstate interactions and pose new challenges or opportunities for US defense policy.
- Synthesized extensive research program on "transformation strategy," i.e., identifying issues and options for US and foreign country transitions from present day military organizations and equipment inventories to a very different military 25 years hence.
- Analyzed challenges to US military superiority that could stem from eroding US advantages in space, stealth, precision navigation, information operations, biotechnology, and other areas, and developed potential strategies for preserving US superiority in light of such challenges.
- Supported net assessment of future US power projection capabilities as challenged by "anti-access" strategies and forces of potential opponents.

Total 772

FY 2000 Planned Program:

- 747 - Design and build comparative, time-series databases to support net assessments of military functions of likely increasing importance. Candidates include long-range precision strike systems and anti-access systems.
- Support net assessment of the military use of space, assessing foreign country and commercial developments that may confer military advantage on potential opponents, and prospect that US space systems' military contribution will be undermined by foreign measures or enhanced by new technologies.

Project M735
Page 16 of 17 Pages
Exhibit R-2A (PE 0605803A)

UNCLASSIFIED

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)		DATE February 2000
BUDGET ACTIVITY 6 - Management and Support	PE NUMBER AND TITLE 0605803A Technical Information Activities	PROJECT M735
<p>- Support DOD efforts to identify promising field experiments to improve understanding of the merits and implications of candidate military innovations suggested in Revolution in Military Affairs war games.</p> <p>- Conduct analysis of economic trends and asymmetries most likely to affect future military balances.</p> <p>FY 2000 Planned Program: (continued)</p> <ul style="list-style-type: none"> • 20 Small Business Innovative Research / Small Business Technology Transfer (SBIR/STTR) Programs. <p>Total 767</p> <p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 764 - Develop functional assessments of the emerging balance of power in key future warfare areas identified in FY 2000; regional net assessments; and/or assessments of political and economic factors that shape the future security environment. - Continue research on foreign country writings, research, organization, and procurement tending to support a Revolution in Military Affairs. <p>Total 764</p>		
Project M735	Page 17 of 17 Pages	Exhibit R-2A (PE 0605803A)